

REMARKS

In response to the Office Action dated June 4, 2003, Applicant respectfully requests reconsideration. The application is believed to be in allowable condition.

In response to the Restriction Requirement, Applicant elects claims 1-20, drawn to a cleaning system, classified in class 15, subclass 301. Claims 21-22 are hereby withdrawn from consideration, without prejudice.

The drawings are objected to for failing to comply with 37 CFR 1.84(p)(4) due to reference character 90 designating a "disposable contain" and a "disposable cup" on page 9 of the Detailed Description. Applicant respectfully disagrees with the objection. "Disposable contain" and "disposable cup" are alternate terms describing the element designated by reference character 90 in FIGS. 3, 6A, and 6B. The alternate terms are used in the application to characterize the container or dish portion of the needle cleaning system, which properly appears in the drawings. Thus, it is believed that corrected drawings are not necessary. If further confusion continues to exist with regards to the drawings, Applicants invite the Examiner to call the undersigned attorney at any time.

The Abstract is objected to because of the inclusion of legal phraseology. The disclosure is objected to because of an in the language on page 1. Both the Abstract and the disclosure have been amended to overcome the objections, and are now believed to be in proper format.

Claim 2 is objected to under 37 CFR 1.75(c) for failing to further limit the subject matter of the previous claim. Claim 2 has been amended and is in proper dependent form.

Claims 1-20 stand rejected under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 1, 8, 12, 14, 15, and 20 have been amended in response to the 112, second paragraph objection, and are believed to be in allowable condition. Applicant notes that in claim 1, line 6, "the liquid" has proper antecedent basis stemming from the preamble of the claim. Thus, the rejection as to this language should be withdrawn. Applicants further note that in claim 12, line 3, "needle or pin" are used in the alternative and are in proper form. Thus, the rejection as to this language should be withdrawn. Applicants further note that, per the Examiner's request, the language "an airflow" appearing in claims 1, 8, 13 and 20 has been qualified so that the claim language reads that the vacuum draws air to create the airflow. Thus, it is requested that the rejections as to this language be withdrawn.

Claims 1-2, 4 and 12-17 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,525,515 (Blattner). As presented, independent claims 1, 12, and 15 are patentable over the cited reference.

Claim 1 is directed to a cleaning system for removing an amount of residual material from a liquid dispensing needle or pin. The system includes a container assembly having at least one orifice, a vacuum source operatively connected to the container assembly wherein the vacuum source draws air to create an airflow through the at least one orifice into the container assembly, and a control system that positions the liquid dispensing needle or pin relative to the at least one orifice in the container assembly wherein the residual material is removed from the dispensing needle or pin by the airflow moving along the length of the liquid dispensing needle or pin as the airflow moves through the at least one orifice.

Blattner discusses a fluid dispensing system having a rinse system to rinse the dispensing system after use. Rinse is sprayed at an exterior of the tip of the dispensing system, or rinse is expelled through the tip via a tube in the dispensing system. The rinse system includes a vacuum system to draw rinse material away from the tip of the micropipette, through tubing, and into a trap vessel. The outer surface of the micropipette is rinsed using a second tubing, which sprays rinsing liquid at the tip, which is thereafter collected by the vacuum tube.

Blattner does not teach or disclose a vacuum source that draws air to create an airflow through at least one orifice into a container assembly. Nor does Blattner teach a control system that positions the liquid dispensing needle or pin relative to the at least one orifice in the container assembly wherein the residual material is removed from the dispensing needle or pin by an airflow moving along the length of the liquid dispensing needle or pin as the airflow moves through the at least one orifice. Instead, the vacuum in Blattner draws air across the micropipette, which is not positioned in a container assembly. Thus, claim 1 is patentable for at least the reasons discussed herein. Claims 2 and 4 depend directly from claim 1 and are patentable for at least the reasons that claim 1 is patentable.

Claim 12 is directed to a self-cleaning liquid dispensing system. The system includes means for receiving a liquid from a liquid source, means for dispensing the liquid through a needle or pin onto a medium, and means for removing an amount of residual material from an exterior portion of the needle or pin without contacting the needle or pin by drawing air that moves in line and proximal to the exterior portion of the needle or pin.

As discussed above with respect to claim 1, Blattner does not teach or disclose a means for removing an amount of residual from an exterior portion of a needle or pin without contact

by drawing air that moves in line and proximal to the exterior portion of the needle or pin, as recited in claim 12. Accordingly, claim 12 is patentably distinguishable over Blattner, and the rejection of claim 12 should be withdrawn. Claims 13 and 14 depend directly from claim 12 and are patentable for at least the reasons that claim 12 is patentable.

Claim 15 is directed to a self-cleaning liquid dispensing system. The system includes at least one dispensing needle or pin, a cleaning system including at least one vacuum source for operatively removing residual material from the exterior of the at least one dispensing needle or pin by creating an inline airflow proximal to the exterior of the at least one dispensing needle or pin, and means for operatively positioning the at least one dispensing needle or pin relative to the vacuum source.

As discussed above with respect to claim 1, Blattner does not teach or disclose at least one vacuum source for operatively removing residual material from the exterior of the at least one dispensing needle or pin by creating an inline airflow proximal to the exterior of the at least one dispensing needle or pin, all of which is recited in claim 15. Accordingly, claim 15 is patentably distinguishable over Blattner, and the rejection of claim 15 should be withdrawn. Claim 17 depends directly from claim 15 and is patentable for at least the reasons that claim 15 is patentable.

Claim 12 stands rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,544,336 (Lopes) in view of U.S. Patent No. 6,082,289 (Cavallaro). Claim 12 is patentable over the cited references.

Lopes discusses a system having a nozzle for spraying a polymer onto a surface. The system includes a vacuum to remove overspray polymer. Cavallaro discusses a dispenser with a pump having a cartridge moveable between an upper non-dispensing position and a lower dispensing system.

As discussed above, claim 12 recites a means for removing an amount of residual material from an exterior portion of the needle or pin without contacting the needle or pin by drawing air that moves in line and proximal to the exterior portion of the needle or pin. Neither Lopes nor Cavallaro teaches or discloses, alone or in combination, such a means for removing an amount of residual material from an exterior portion of the needle or pin without contacting the needle or pin by drawing air that moves in line and proximal to the exterior portion of the needle or pin. Accordingly, claim 12 is patentably distinguishable over Lopes in view of Cavallaro, and the rejection of claim 12 should be withdrawn.

Applicant: Steven P. Bibb
U.S.S.N.: 09/974,022

Claims 5-6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blattner. Claims 5 and 6 depend, directly or indirectly from claim 1. As discussed above, claim 1 is patentably distinguishable over Blattner. Thus, claims 5 and 6 are patentable for at least the reasons that claim 1 is patentable. Claim 18 depends indirectly from claim 15. As discussed above, claim 15 is patentably distinguishable over Blattner. Thus, claim 18 is patentable for at least the reasons that claim 15 is patentable.

Applicant notes that claim 8 has been indicated as allowable if amended to overcome the 35 U.S.C. 112, second paragraph, rejection. Claim 8 has been amended accordingly and is believed to be in allowable condition.

Applicants note that new claim 23 has been added. No new matter is added with the addition of claim 23.

Based on the foregoing, this application is believed to be in allowable condition, and a notice to that effect is respectfully requested. To answer any questions, or otherwise further the prosecution of this application, the Examiner may contact the undersigned attorney at the number provided below.

Respectfully submitted,


Alison L. McCarthy (Marcotte), Esq.
Registration No. 51,998
Mintz, Levin, Cohn, Ferris
Glovsky and Popeo, P.C.
One Financial Center
Boston, MA 02111
Telephone: (617) 542-6000
Facsimile: (617) 542-2241
Attorney for Applicant

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